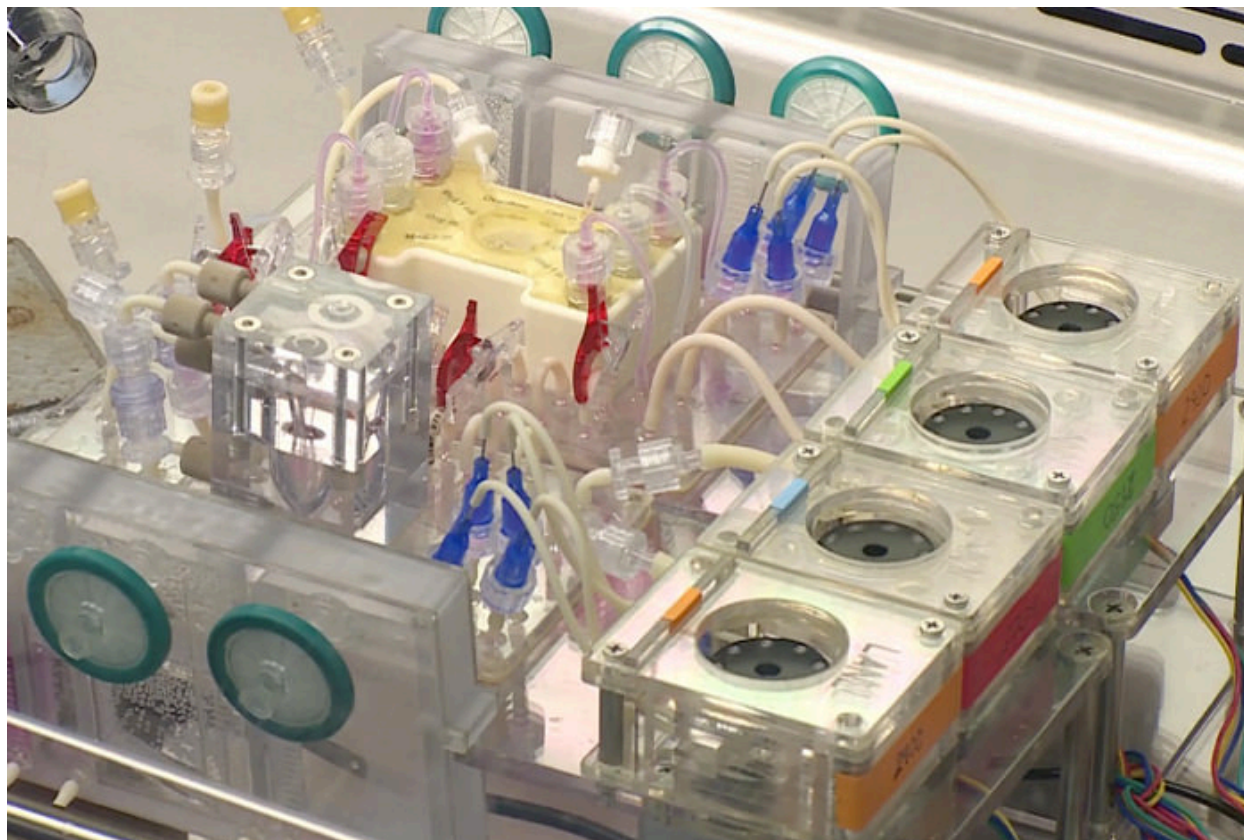


Protecting our artifacts

May 1, 2017



With

the roughly 1,000 items in the Museum's collection, and more coming in, the Museum has an enormous conservation responsibility. It entails protecting the collected items from the environmental factors that seek to deteriorate them. Light, temperature, dust, gases, and humidity are all things our collection specialist, Wendy Strohmeyer, must contend with every day.

"Some of our oldest artifacts, from the Manhattan Project, are also our most fragile," she said. "It can be a challenge to keep them stable."

Photographs, textiles, glass, ceramics, newspapers, and comic books need tailored preservation efforts because they are all stable in different surroundings. For the same reason, items that contain various materials, such as metal, leather, plastic, and wood, can be a special challenge.

One of Wendy's most recent tasks is to preserve an item from the Lab's ongoing ATHENA project, which simulates human organ systems. The artifact from that project includes metal, plastic, rubber, and even liquid.

"The rubber and plastic parts will continuously deteriorate, and the liquids they contain will evaporate over time," Wendy said. "Still, we need to make sure that generations

from now, people will be able to see these things as close to the way they look now as possible.”

The Canadian Conservation Institute expands on these sorts of problems on its website.

For example, the strength and flexibility of rubber may change. It may become brittle, hard, or cracked, or it may soften and become spongy, or sticky. Plastics may lose strength, and, at the same time, become brittle, crack and shrink with age. Rubber and plastic surfaces may be altered by cracking, developing chalky or dusty surfaces, or becoming sticky.

To help control for potential deterioration, the warehouse where Museum artifacts reside has equipment that detects and records temperature and humidity levels every five minutes. In addition, the cases, drawers, boxes, and envelopes where the items are stored are manufactured to protect their contents to the greatest extent possible.

For more information on artifact conservation, visit some of the following websites:

[American Institute for Conservation of Historic and Artistic Works](#)

[The Smithsonian's Museum Conservation Institute](#)

[Society for Historical Archaeology](#)

[Canadian Conservation Institute](#)

[Australian Institute for the Conservation of Cultural Material](#)

The Lab welcomes historical contributions from the public for addition to our collection. If you have something you would like the Museum to consider, send a photograph and description to wstrohmeyer@lanl.gov.



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